

U.S. Patent Application Serial No. 10/560,365
Response filed June 13, 2008
Reply to OA dated March 17, 2008

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): A scroll compressor in which a fixed scroll part and an
2 orbiting scroll part are meshed with each other to form a compression chamber, said orbiting scroll
3 part is allowed to orbit in a circular orbit while restraining said orbiting scroll part from rotating by
4 a rotation-restraint mechanism, a refrigerant is sucked, compressed and discharged while
5 continuously varying a capacity of said compression chamber, wherein

6 an oil supply passage is formed in a suction space of said fixed scroll part, and said suction
7 space is provided with an oil collision part, wherein

8 a side surface of said oil collision part on the side of a refrigerant passage is a concave curved
9 surface, one of end surfaces of said curved surface is formed on an extension surface of a suction
10 pipe connected to said suction space, an intersection angle between a tangent of said one end surface
11 of said curved surface and a tangent of the other end surface of said curved surface is an acute angle.

1 Claim 2 (original): The scroll compressor according to claim 1, wherein a gap is formed
2 between said oil collision part and a wall surface of said suction space.

1 Claim 3 (original): The scroll compressor according to claim 2, wherein said gap comprises
2 a first gap formed from said oil supply passage toward a suction pipe and a second gap formed from
3 said oil supply passage toward said compression chamber, and said first gap is greater than said
4 second gap.

1 Claim 4 (original): The scroll compressor according to claim 2, wherein said gap comprises
2 a first gap formed from said oil supply passage toward a suction pipe and a second gap formed from
3 said oil supply passage toward said compression chamber, and said second gap is greater than said
4 first gap.

Claims 5 and 6 (canceled).

1 Claim 7 (currently amended): The scroll compressor according to claim [[5]] 1, wherein at
2 least one of ends constituting the side surface of said oil collision part on the side of a refrigerant
3 passage is formed into a r-shape.

1 Claim 8 (previously presented): The scroll compressor according to claim 1, wherein HFC-
2 based refrigerant or HCFC-based refrigerant is used as said refrigerant.

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1 Claim 9 (previously presented): The scroll compressor according to claim 1, wherein carbon
2 dioxide is used as said refrigerant.

 Claim 10 (canceled).

1 Claim 11 (previously presented): The scroll compressor according to claim 2, wherein HFC-
2 based refrigerant or HCFC-based refrigerant is used as said refrigerant.

1 Claim 12 (previously presented): The scroll compressor according to claim 3, wherein HFC-
2 based refrigerant or HCFC-based refrigerant is used as said refrigerant.

1 Claim 13 (previously presented): The scroll compressor according to claim 4, wherein HFC-
2 based refrigerant or HCFC-based refrigerant is used as said refrigerant.

1 Claim 14 (currently amended): The scroll compressor according to claim [[5]] 1, wherein
2 HFC-based refrigerant or HCFC-based refrigerant is used as said refrigerant.

 Claim 15 (canceled).

1 Claim 16 (previously presented): The scroll compressor according to claim 2, wherein
2 carbon dioxide is used as said refrigerant.

1 Claim 17 (previously presented): The scroll compressor according to claim 3, wherein
2 carbon dioxide is used as said refrigerant.

1 Claim 18 (previously presented): The scroll compressor according to claim 4, wherein
2 carbon dioxide is used as said refrigerant.

1 Claim 19 (currently amended): The scroll compressor according to claim [[5]] 1, wherein
2 carbon dioxide is used as said refrigerant.

Claim 20 (canceled).

1 Claim 21 (new): A scroll compressor in which a fixed scroll part and an orbiting scroll part
2 are meshed with each other to form a compression chamber, said orbiting scroll part is allowed to
3 orbit in a circular orbit while restraining said orbiting scroll part from rotating by a rotation-restraint
4 mechanism, a refrigerant is sucked, compressed and discharged while continuously varying a
5 capacity of said compression chamber, wherein
6 an oil supply passage is formed in a suction space of said fixed scroll part, and said suction

7 space is provided with an oil collision part, wherein

8 a side surface of said oil collision part on the side of a refrigerant passage is a concave curved
9 surface, one of end surfaces of said curved surface is formed on an extension surface of a suction
10 pipe connected to said suction space, an intersection angle between a tangent of said one end surface
11 of said curved surface and a tangent of the other end surface of said curved surface is an obtuse
12 angle.

1 Claim 22 (new): The scroll compressor according to claim 21, wherein a gap is formed
2 between said oil collision part and a wall surface of said suction space.

1 Claim 23 (new): The scroll compressor according to claim 22, wherein said gap comprises
2 a first gap formed from said oil supply passage toward a suction pipe and a second gap formed from
3 said oil supply passage toward said compression chamber, and said first gap is greater than said
4 second gap.

1 Claim 24 (new): The scroll compressor according to claim 23, wherein HFC-based
2 refrigerant or HCFC-based refrigerant is used as said refrigerant.

1 Claim 25 (new): The scroll compressor according to claim 23, wherein carbon dioxide is
2 used as said refrigerant.

1 Claim 26 (new): The scroll compressor according to claim 22, wherein said gap comprises
2 a first gap formed from said oil supply passage toward a suction pipe and a second gap formed from
3 said oil supply passage toward said compression chamber, and said second gap is greater than said
4 first gap.

1 Claim 27 (new): The scroll compressor according to claim 26, wherein HFC-based
2 refrigerant or HCFC-based refrigerant is used as said refrigerant.

1 Claim 28 (new): The scroll compressor according to claim 26, wherein carbon dioxide is
2 used as said refrigerant.

1 Claim 29 (new): The scroll compressor according to claim 22, wherein HFC-based
2 refrigerant or HCFC-based refrigerant is used as said refrigerant.

1 Claim 30 (new): The scroll compressor according to claim 22, wherein carbon dioxide is
2 used as said refrigerant.

1 Claim 31 (new): The scroll compressor according to claim 21, wherein at least one of ends
2 constituting the side surface of said oil collision part on the side of a refrigerant passage is formed

3 into a r-shape.

1 Claim 32 (new): The scroll compressor according to claim 21, wherein HFC-based
2 refrigerant or HCFC-based refrigerant is used as said refrigerant.

1 Claim 33 (new): The scroll compressor according to claim 21, wherein carbon dioxide is
2 used as said refrigerant.

1 Claim 34 (new): The scroll compressor according to claim 21, wherein HFC-based
2 refrigerant or HCFC-based refrigerant is used as said refrigerant.

1 Claim 35 (new): The scroll compressor according to claim 21, wherein carbon dioxide is
2 used as said refrigerant.

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